



EXTRACTION AND UTILIZATION OF  
CELL GROWTH-PROMOTING PEPTIDES FROM SILK PROTEIN

ABSTRACT

~~An object is to obtain peptides~~Peptides are provided  
having an excellent-in safety, stability due to  
relatively low molecular weights thereof, and cell growth  
promotion, which are different from cell growth factors  
produced by abnormal cells such as tumor cells. Peptide  
compositions which are excellent forin promoting cell  
growth ~~comprising~~containing partial peptides of one or  
more peptide chains selected from peptide chains forming  
noncrystalline portions constituting silk protein,~~said.~~  
The partial peptides ~~having~~have specific amino acid  
sequences formed of four to forty amino acid residues.  
This invention has succeeded in providing novel peptides  
excellent for cell growth by separating and fractionating  
peptides, having specific amino acid sequences of  
molecular weights not higher than 10,000, preferably  
ranging from 4,000 to 400, from the noncrystalline  
portions of silk protein as well as by synthesizing  
peptides similar to such peptides. These peptides may be  
used for biomaterials such as a cell adhesion agent, cell  
growth-promoting agent, wound healing promoting agent,  
skin care material like cosmetic material or the like,  
and cell culture substrate.